5

10

LSI 01-647 PATENT

$MULTI\text{-}THREAD,\ MULTI\text{-}SPEED,\ MULTI\text{-}MODE\ INTERCONNECT}\\ PROTOCOL\ CONTROLLER$

ABSTRACT

The present invention is a novel system and method for implementing multiple protocol definitions including multiple interconnect protocols and protocol methods. Protocol methods may include a single-thread, multi-speed interconnect protocol method and a multi-thread, single-speed interconnect protocol method with shared resources on a single die. Various aspects of serializer/deserializer, encoder/decoder, aggregator, and protocol functions may be shared among both protocol definitions to provide cost and real estate efficiency.